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Poly(vinylidene fluoride); Binder; Graphite electrode; Li-ion battery (Zhang, S.S. (109) 422)

Poly(ethylene oxide)
Polymer electrolyte; Poly(vinyl alcohol); Ionic conductivity; Nickel-metal-hydride battery (Yang, C.-C. (109) 22)

Poly(vinyl alcohol)
Polymer electrolyte; Poly(ethylene oxide); Ionic conductivity; Nickel-metal-hydride battery (Yang, C.-C. (109) 22)

Poly(vinylidene fluoride)
Poly(acrylonitrile-methyl methacrylate); Binder; Graphite electrode; Li-ion battery (Zhang, S.S. (109) 422)

Polyaniline
Nano-tin; Composite electrode; Charge-discharge; Cycle life (Zhang, X.-W. (109) 136)

Polyethylene oxide
Battery; Composite polymer electrolyte; Silica; Ceramic filler (Liu, Y. (109) 507)

Polymer electrolyte fuel cell
Composite membrane; Nafion; Water uptake; Water flux (Shim, J. (109) 412)

Polymer electrolyte fuel cells
 Carbon powder; Cathode gas diffusion layer (Antolini, E. (109) 477)

Polymer electrolyte membrane
 Fuel cell; Humidification; Relative humidity; Spargers (Rajalakshmi, N. (109) 452)

Polymer electrolyte
 Fuel cell; Preferential oxidation reaction; Platinum-ruthenium catalyst; Carbon monoxide (Lee, S.H. (109) 394)

Polymer electrolyte
 Poly(ethylene oxide); Poly(vinyl alcohol); Ionic conductivity; Nickel–metal-hydride battery (Yang, C.-C. (109) 22)

Polymer electrolyte
 Sulfur; Lithium secondary battery; Lithium sulfide (Jeon, B.H. (109) 89)

Polymer electrolytes
 FTIR studies; Differential scanning calorimetry; Ionic conductivity; Magnesium (Jaipal Reddy, M. (109) 340)

Polypyrrole
 Irreversible capacity; Anode material; Lithium-ion batteries (Veeraraghavan, B. (109) 377)

Positive electrode
 VRLA; Cycle life (Ball, R.J. (109) 189)

Power density
 Hybrid power sources; Current pulsing; Battery/capacitor hybrids; Pulsed systems; Specific energy; Specific power; Energy density (Holland, C.E. (109) 32)

Power plant
 Natural gas; Hybrid system; Gas turbine; Solid oxide fuel cell (Chan, S.H. (109) 111)

Preferential oxidation reaction
 Polymer electrolyte; Fuel cell; Platinum-ruthenium catalyst; Carbon monoxide (Lee, S.H. (109) 394)

Proton exchange membrane (PEM) fuel cells
 Sputter deposition; Catalyst; Thin film (O’Hayre, R. (109) 483)

Proton-exchange membrane fuel cells
 Perfluorosulfonic acid membranes; Sol–gel technique (Adjemian, K.T. (109) 356)

Pseudo-capacitance
 Supercapacitor; Surface groups; Edge/basal layers; Double-layer; Activated carbon (Qu, D. (109) 403)

Pseudocapacitor
 Capacitor; Electrochemical capacitor; Ruthenium oxide (Park, J.H. (109) 121)

Pt/C
 Electrodes; Catalyst-coated membranes; PEM fuel cells; Catalyst layer (Qi, Z. (109) 227)

Pulsed current formation
 Lead acid; Battery; Tetrabasic lead sulfate; Alpha and beta lead dioxide (Diniz, F.B. (109) 184)

Pulsed systems
 Hybrid power sources; Current pulsing; Battery/capacitor hybrids; Specific energy; Specific power; Energy density; Power density (Holland, C.E. (109) 32)

Quasi-lattice theory
 Viscosity; Conductivity; Organic electrolytes; Butyrolactone; Lithium battery (Chagnes, A. (109) 203)

Rapid thermal annealing (RTA)
 Thin-film microbattery; $\text{LiNi}_{1-x}\text{Co}_x\text{O}_2$; Surface layer; Auger electron spectroscopy (AES); Cyclibility (Kim, H.-K. (109) 178)

Recycling
 Lithium-ion battery; Cathode active material; Cobalt; Spend batteries (Lee, C.K. (109) 17)

Redox battery
 1-Ethyl-3-methylimidazolium; Iron chloride; Molten salt (Katayama, Y. (109) 327)

Redox flow battery
 Sulfuric acid; Cerous and Ceric sulfate; Solubility; Cyclic voltammetry; Carbon glassy electrode; Redox potential (Paulenova, A. (109) 431)

Redox potential
 Redox flow battery; Sulfuric acid; Cerous and Ceric sulfate; Solubility; Cyclic voltammetry; Carbon glassy electrode (Paulenova, A. (109) 431)

Relative humidity
 Fuel cell; Humidification; Polymer electrolyte membrane; Spargers (Rajalakshmi, N. (109) 452)

RuO_2
 Direct methanol fuel cell; All-solid-state supercapacitor; Nafion® membrane; Hybrid power source (Park, K.-W. (109) 500)

RuO_2
 Direct methanol fuel cell; Diffusion layer; Carbon– RuO_2 composite (Park, K.-W. (109) 439)

Ruthenium oxide
 Capacitor; Electrochemical capacitor; Pseudocapacitor (Park, J.H. (109) 121)

SEI
 Li-ion batteries; Additives; Gas generation; Li_2CO_3 (Shin, J.-S. (109) 47)

Separator
 AGM type; Lead-acid batteries; Capillary lift (Kamenev, Yu. (109) 276)

Separator
 Li-ion secondary battery; Web process (Ihm, D. (109) 388)

Silica
 Battery; Composite polymer electrolyte; Polyethylene oxide; Ceramic filler (Liu, Y. (109) 507)

Silicon processing technology
 PEM fuel cells; Silicon-based microreactors; Miniaturized fuel cell (Meyers, J.P. (109) 76)

Silicon-based microreactors
 PEM fuel cells; Silicon processing technology; Miniaturized fuel cell (Meyers, J.P. (109) 76)

Sol-gel method
 Electrochemical characteristics; Lithium secondary batteries; Spinal; 5 V materials (Hong, K.-J. (109) 427)

Sol-gel technique
 Perfluorosulfonic acid membranes; Proton-exchange membrane fuel cells (Adjemian, K.T. (109) 356)

Sol-gel
 Intercalation compounds; Birnessite compound (Franger, S. (109) 262)

Solid electrolyte
 Ion-implantation; Lipon; Ionic conductivity (Kim, B. (109) 214)

Solid oxide fuel cell
 Natural gas; Hybrid system; Gas turbine; Power plant (Chan, S.H. (109) 111)

Solid oxide
 Transient; Unrestrained; Load-following (Haynes, C. (109) 365)

Solid solution
 Ni-12 wt.% Al anode; Molten carbonate fuel cell; Ni_3Al ; Al_2O_3 ; Creep strain (Kim, D. (109) 347)

Solubility
 Molten carbonate fuel cells; Phase transformation; Lithium aluminate; Particle size (Takizawa, K. (109) 127)

Solubility
 Redox flow battery; Sulfuric acid; Cerous and Ceric sulfate; Cyclic voltammetry; Carbon glassy electrode; Redox potential (Paulenova, A. (109) 431)

Spargers
 Fuel cell; Humidification; Polymer electrolyte membrane; Relative humidity (Rajalakshmi, N. (109) 452)

Specific energy
 Hybrid power sources; Current pulsing; Battery/capacitor hybrids; Pulsed systems; Specific power; Energy density; Power density (Holland, C.E. (109) 32)

Specific power
 Hybrid power sources; Current pulsing; Battery/capacitor hybrids;
 Pulsed systems; Specific energy; Energy density; Power density
 (Holland, C.E. (109) 32)

Spend batteries
 Lithium-ion battery; Cathode active material; Recycling; Cobalt (Lee,
 C.K. (109) 17)

Spinal
 Sol-gel method; Electrochemical characteristics; Lithium secondary
 batteries; 5 V materials (Hong, K.-J. (109) 427)

Spinel LiMn_2O_4
 Cyclic voltammetry; Capacity fading; Carbon black; Li-ion battery
 (Zhang, S.S. (109) 172)

Spinel
 Chelating agent; Doping (Yoon, C.S. (109) 234)

Spray pyrolysis
 Partially substitute spinels; LiMn_2O_4 ; Lithium-ion batteries; Cathode
 (Taniguchi, I. (109) 333)

Sputter deposition
 Proton exchange membrane (PEM) fuel cells; Catalyst; Thin film
 (O'Hare, R. (109) 483)

Stability
 Carbon pretreatment; Alkaline electrolyte; Gas diffusion electrodes;
 Physical and surface characterisation; Activity (Pirjamali, M. (109)
 446)

Stack
 Double-path-type flow-field; PEM fuel cells (Qi, Z. (109) 469)

State-of-charge
 Electric vehicle; Battery management system; Ni-MH battery; Thermal
 management, control of charging and discharging (Jung, D.Y. (109) 1)

Sublayer
 Microporous; Carbon paper; Catalyst layer; PEM fuel cells (Qi, Z. (109) 38)

Sulfur
 Lithium secondary battery; Lithium sulfide; Polymer electrolyte (Jeon,
 B.H. (109) 89)

Sulfuric acid
 Redox flow battery; Cerous and Ceric sulfate; Solubility; Cyclic
 voltammetry; Carbon glassy electrode; Redox potential (Paulenova,
 A. (109) 431)

Super-iron
 BaFeO_4 ; Fe(VI) cathode; Ferrate; Alkaline battery (Licht, S. (109) 67)

Super-iron
 BaFeO_4 ; MnO_2 ; Fe(VI) cathode; Ferrate; Alkaline battery (Licht, S.
 (109) 465)

Supercapacitance
 Electrochemical synthesis; Carbon fibers; Functionalized carbon fibers;
 Charge-discharge (Adhyapak, P.V. (109) 105)

Supercapacitor
 Surface groups; Pseudo-capacitance; Edge/basal layers; Double-layer;
 Activated carbon (Qu, D. (109) 403)

Surface groups
 Supercapacitor; Pseudo-capacitance; Edge/basal layers; Double-layer;
 Activated carbon (Qu, D. (109) 403)

Surface layer
 Rapid thermal annealing (RTA); Thin-film microbattery;
 $\text{LiNi}_{1-x}\text{Co}_x\text{O}_2$; Auger electron spectroscopy (AES); Cyclibility
 (Kim, H.-K. (109) 178)

Technical cost model
 PEM fuel cell; Injection molded bi-polar plate (Bar-On, I. (109) 71)

Tetrabasic lead sulfate
 Pulsed current formation; Lead acid; Battery; Alpha and beta lead
 dioxide (Diniz, F.B. (109) 184)

TG-DTA
 Nickel hydroxide; XRD; Hydrothermal; Electrolytic properties
 (Acharya, R. (109) 494)

Thermal behavior
 Lithium-ion batteries; Heat dissipation; Heat pipe (Wu, M.-S. (109)
 160)

Thermal capacity
 Thermal impedance spectrum; Thermal conductivity; Lithium-ion bat-
 tery; Heat pulse (Barsoukov, E. (109) 313)

Thermal conductivity
 Thermal impedance spectrum; Thermal capacity; Lithium-ion battery;
 Heat pulse (Barsoukov, E. (109) 313)

Thermal impedance spectrum
 Thermal capacity; Thermal conductivity; Lithium-ion battery; Heat
 pulse (Barsoukov, E. (109) 313)

Thermal management, control of charging and discharging
 Electric vehicle; Battery management system; Ni-MH battery; State-of-
 charge (Jung, D.Y. (109) 1)

Thermal stability
 Li-ion cell; Electrolyte; PC, EC, Li salt, lithium metal; $\text{Li}_{0.5}\text{CoO}_2$
 (Katayama, N. (109) 321)

Thin film
 Proton exchange membrane (PEM) fuel cells; Sputter deposition;
 Catalyst (O'Hare, R. (109) 483)

Thin-film microbattery
 Rapid thermal annealing (RTA); $\text{LiNi}_{1-x}\text{Co}_x\text{O}_2$; Surface layer;
 Auger electron spectroscopy (AES); Cyclibility (Kim, H.-K.
 (109) 178)

Tin oxide
 Electrochemical capacitor; Crystallization; Capacitance (Wu, N.L.
 (109) 418)

Transient
 Solid oxide; Unrestrained; Load-following (Haynes, C. (109) 365)

Unrestrained
 Transient; Solid oxide; Load-following (Haynes, C. (109) 365)

Vehicle electric power system
 Battery model; Alternator model (Lee, W. (109) 58)

Viscosity
 Quasi-lattice theory; Conductivity; Organic electrolytes; Butyrolactone;
 Lithium battery (Chagnes, A. (109) 203)

Voltage measurement
 Lithium ion batteries; Lead-acid batteries; Nickel metal hybrid batteries
 (Wang, X. (109) 253)

VRLA
 Cycle life; Positive electrode (Ball, R.J. (109) 189)

Water flux
 Polymer electrolyte fuel cell; Composite membrane; Nafion; Water
 uptake (Shim, J. (109) 412)

Water uptake
 Polymer electrolyte fuel cell; Composite membrane; Nafion; Water flux
 (Shim, J. (109) 412)

Web process
 Separator; Li-ion secondary battery (Ihm, D. (109) 388)

X-ray absorption
 Lithium; X-ray diffraction; Electrochemical reaction; Cobalt phosphide
 (Alcántara, R. (109) 308)

X-ray diffraction
 Lithium; Electrochemical reaction; Cobalt phosphide; X-ray absorption
 (Alcántara, R. (109) 308)

XPS and SIMS on lithiated carbon
 Gelled polymer lithium ion cells; Overcharge tolerance phenomenon;
 Non-dendritic lithium plating on carbon (Xing, W. (109) 167)

XRD
 Nickel hydroxide; TG-DTA; Hydrothermal; Electrolytic properties
 (Acharya, R. (109) 494)